AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A phase-change optical information recording medium in which information can be recorded, reproduced and rewritten, comprising:

a first transparent substrate having a wobbling groove which is spirally formed thereon at a pitch;

a first dielectric layer located overlying the first transparent substrate and having an optical thickness of from 80 nm to 200 nm;

a phase-change recording layer located overlying the first dielectric layer and having an optical thickness of from 20 nm to 50 nm when the phase-change recording layer is in an erased state;

a second dielectric layer located overlying the phase-change recording layer and having an optical thickness of from 10 nm to 70 nm;

a reflection layer located overlying the second dielectric layer; and

a second transparent substrate located overlying the reflection layer,

wherein a push-pull signal is from 0.27 to 0.54 after recording.

Claim 2 (original): The optical information recording medium according to Claim 1, further comprising a third dielectric layer between the second dielectric layer and the reflection layer.

Claim 3 (original): The optical information recording medium according to Claim 1, further comprising an adhesive layer between the reflection layer and the second transparent substrate.

Claim 4 (original): The optical information recording medium according to Claim 1, further comprising a weather resistance layer between the reflection layer and the second transparent substrate.

Claim 5 (original): The optical information recording medium according to Claim 1, wherein the first transparent substrate has a refractive index of from 1.50 to 1.65 and a thickness of from 0.59 mm to 0.62 mm.

Claim 6 (original): The optical information recording medium according to Claim 1, wherein the first transparent substrate has an absolute value of birefringence not greater than 50 nm.

Claim 7 (original): The optical information recording medium according to Claim 1, wherein the pitch of the wobbling groove is from 0.70 μm to 0.80 μm, and the wobbling groove has an amplitude of from 15 nm to 40 nm, and wherein clock information is input in the wobbling groove using a first sinusoidal wobble having a first phase and address information and disk information are input in the wobbling groove using a second sinusoidal wobble having a phase different from the first phase of the first sinusoidal wobble by 180°.

Claims 8 - 15 (canceled)

Claim 16 (new): A phase-change optical information recording medium in which information can be recorded, reproduced and rewritten, comprising:

a first transparent substrate having a wobbling groove which is spirally formed thereon at a pitch;

a first dielectric layer located overlying the first transparent substrate and having an optical thickness of from 80 nm to 200 nm;

a phase-change recording layer located overlying the first dielectric layer and having an optical thickness of from 20 nm to 50 nm when the phase-change recording layer is in an erased state;

a second dielectric layer located overlying the phase-change recording layer and having an optical thickness of from 10 nm to 70 nm;

a reflection layer located overlying the second dielectric layer; and

a second transparent substrate located overlying the reflection layer,

wherein a maximum/minimum ratio of Vwobble is not greater than 2.5.

Claim 17 (new): The optical information recording medium according to Claim 16, further comprising a third dielectric layer between the second dielectric layer and the reflection layer.

Claim 18 (new): The optical information recording medium according to Claim 16, further comprising an adhesive layer between the reflection layer and the second transparent substrate.

Claim 19 (new): The optical information recording medium according to Claim 16, further comprising a weather resistance

layer between the reflection layer and the second transparent substrate.

Claim 20 (new): The optical information recording medium according to Claim 16, wherein the first transparent substrate has a refractive index of from 1.50 to 1.65 and a thickness of from 0.59 mm to 0.62 mm.

Claim 21 (new): The optical information recording medium according to Claim 16, wherein the first transparent substrate has an absolute value of birefringence not greater than 50 nm.

Claim 22 (new): The optical information recording medium according to Claim 16, wherein the pitch of the wobbling groove is from 0.70 μm to 0.80 μm, and the wobbling groove has an amplitude of from 15 nm to 40 nm, and wherein clock information is input in the wobbling groove using a first sinusoidal wobble having a first phase and address information and disk information are input in the wobbling groove using a second sinusoidal wobble having a phase different from the first phase of the first sinusoidal wobble by 180°.

Claim 23 (new): A phase-change optical information recording medium in which information can be recorded, reproduced and rewritten, comprising:

a first transparent substrate having a wobbling groove which is spirally formed thereon at a pitch;

a first dielectric layer located overlying the first transparent substrate and having an optical thickness of from 80 nm to 200 nm;

a phase-change recording layer located overlying the first dielectric layer and having an optical thickness of from 20 nm to 50 nm when the phase-change recording layer is in an erased state;

a second dielectric layer located overlying the phase-change recording layer and having an optical thickness of from 10 nm to 70 nm;

a reflection layer located overlying the second dielectric layer; and

a second transparent substrate located overlying the reflection layer,

wherein a wobbling amplitude is not greater than 40 nm and a maximum/minimum ratio of Vwobble is not greater than 2.5.

Claim 24 (new): The optical information recording medium according to Claim 23, further comprising a third dielectric layer between the second dielectric layer and the reflection layer.

Claim 25 (new): The optical information recording medium according to Claim 23, further comprising an adhesive layer between the reflection layer and the second transparent substrate.

Claim 26 (new): The optical information recording medium according to Claim 23, further comprising a weather resistance layer between the reflection layer and the second transparent substrate.

Claim 27 (new): The optical information recording medium according to Claim 23, wherein the first transparent substrate has a refractive index of from 1.50 to 1.65 and a thickness of from 0.59 mm to 0.62 mm.

Claim 28 (new): The optical information recording medium according to Claim 23, wherein the first transparent substrate has an absolute value of birefringence not greater than 50 nm.

Claim 29 (new): The optical information recording medium according to Claim 23, wherein the pitch of the wobbling groove is from 0.70 μm to 0.80 μm, and the wobbling groove has an amplitude of from 15 nm to 40 nm, and wherein clock information is input in the wobbling groove using a first sinusoidal wobble having a first phase and address information and disk information are input in the wobbling groove using a second sinusoidal wobble having a phase different from the first phase of the first sinusoidal wobble by 180°.